

Surface Mount Schottky Rectifier

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Mechanical Data

- Package: SOD-123FL
- Terminals: Tin plated leads, solderable per
- Polarity: Cathode line denotes the cathode end

Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	SS32FL	SS33FL	SS34FL	SS35FL	SS36FL	SS38FL	SS310FL	SS315FL	SS320FL
Repetitive peak reverse voltage	VRRM	V	20	30	40	50	60	80	100	150	200
Average rectified output current @60Hz sine wave, Resistance load, Ta (FIG.1)	IO	A	3.0								
Surge(non-repetitive)forward current @60Hz half-sine wave, 1 cycle, Tj=25℃	IFSM	A	80								
Storage temperature	Tstg	℃	-55 ~+150								
Junction temperature	Tj	℃	-55 ~+150					-55 ~+175			
Typical Junction Capacitance measured at 1MHz and Applied on 4.0VD.C	Cj	pF	165								

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	Test Conditions	SS32FL	SS33FL	SS34FL	SS35FL	SS36FL	SS38FL	SS310FL	SS315FL	SS320FL
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=3.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IRRM	mA	Ta=25℃	0.5					0.1			
			Ta=100℃	10					5			



Thermal Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	SS32FL	SS33FL	SS34FL	SS35FL	SS36FL	SS38FL	SS310FL	SS315FL	SS320FL
Thermal Resistance	$R_{\theta J-A}$	$^{\circ}\text{C}/\text{W}$	70 ¹⁾								
	$R_{\theta J-L}$		25 ¹⁾								

Note:

(1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

Characteristics (Typical)

FIG1:Io-TL Curve

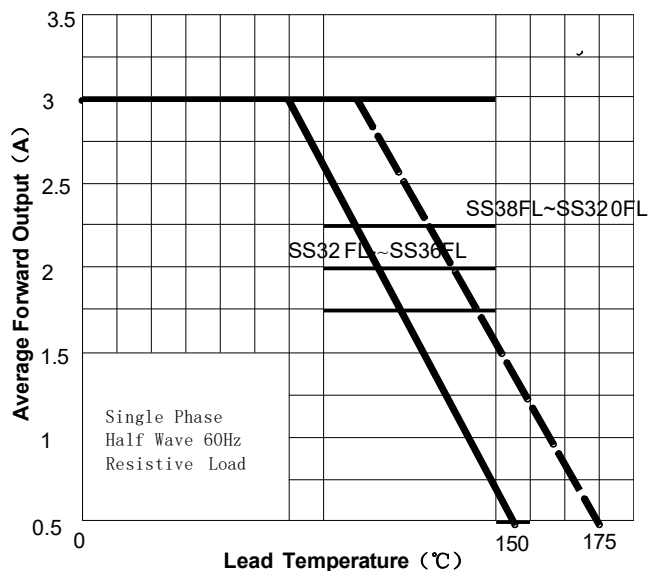


FIG2: Surge Forward Current Capability

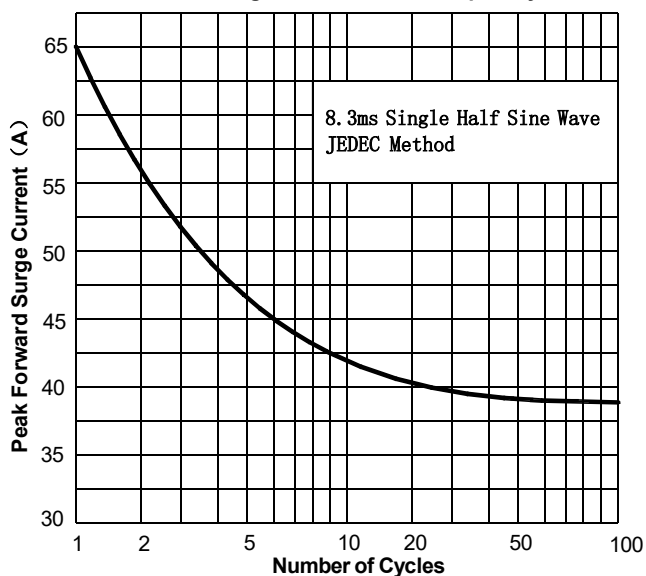


FIG3: Forward Voltage

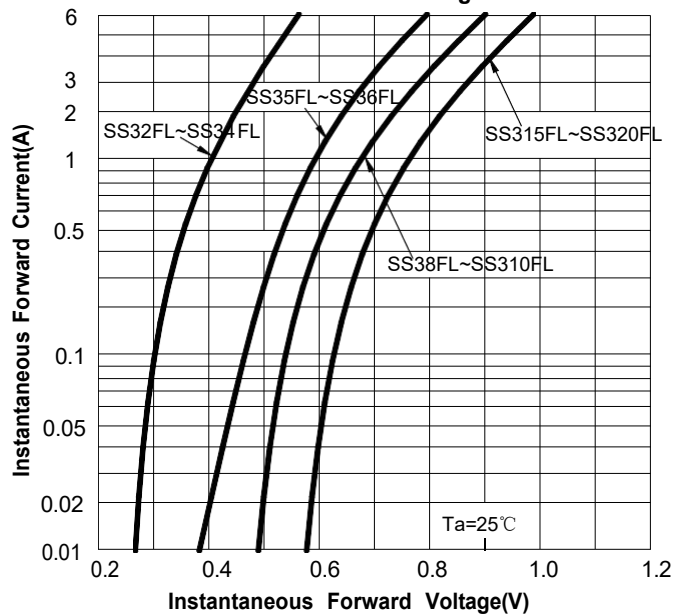
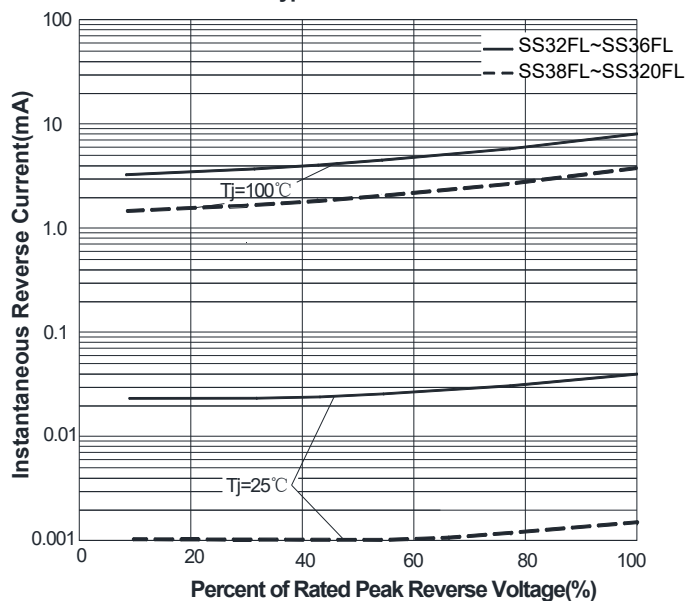


FIG4: Typical Reverse Characteristics





Dimensions (SOD-123FL)

Dim	Inches		Millimeters	
	Min	Max	Min	Max
A	0.138	0.154	3.50	3.90
B	0.114	0.122	2.90	3.10
C	0.067	0.079	1.70	2.00
D	0.033	0.041	0.85	1.05
E	0.041	0.049	1.05	1.25
F	0.017	0.033	0.43	0.83
G	0.004	0.010	0.10	0.25

Cathode Band
(for uni-directional products only)

Dimensions in inches and
(millimeters)

Soldering footprint